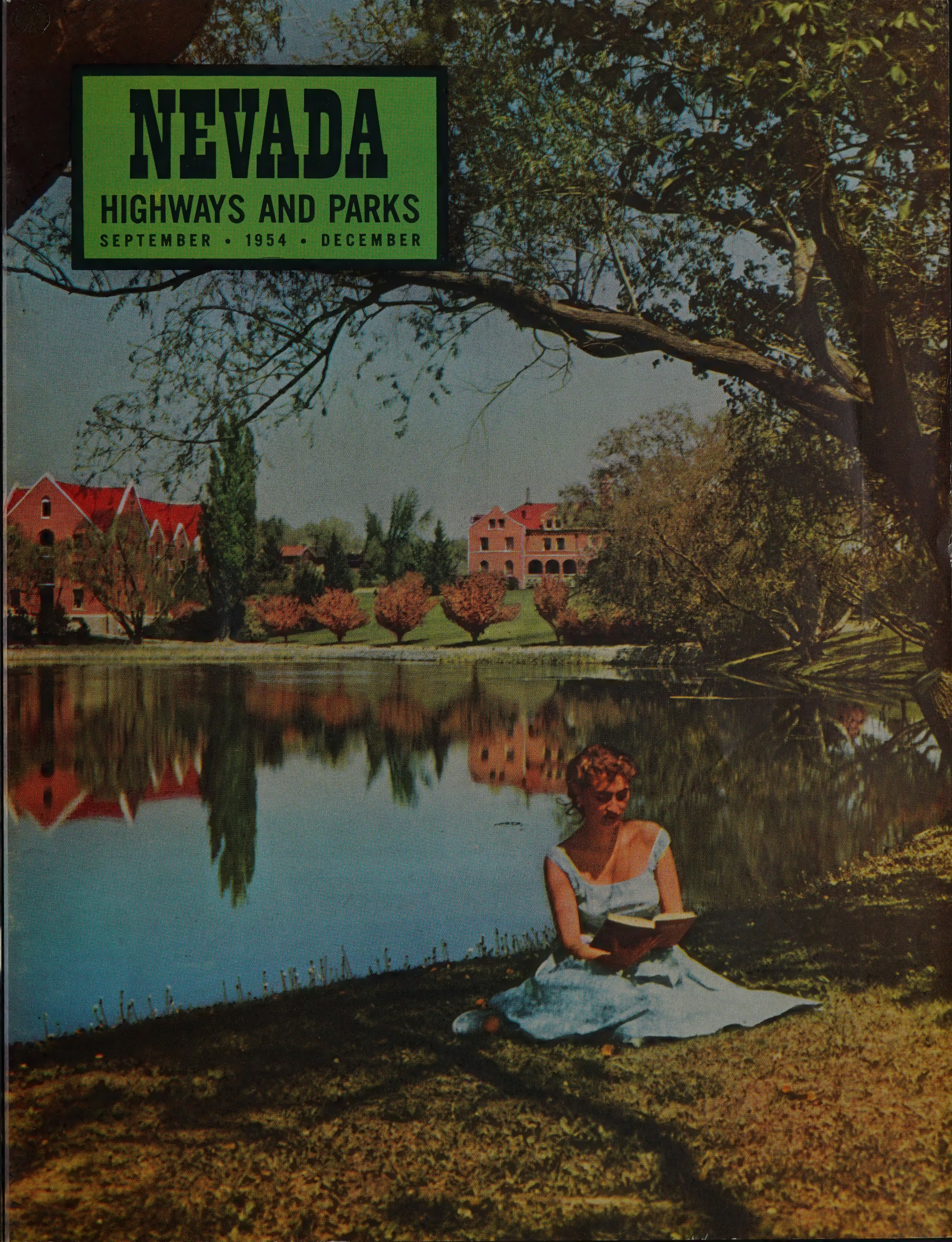
NEVADA

HIGHWAYS AND PARKS

SEPTEMBER • 1954 • DECEMBER



NEVADA HIGHWAYS AND PARKS

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Department of Highways

CARSON CITY, NEVADA

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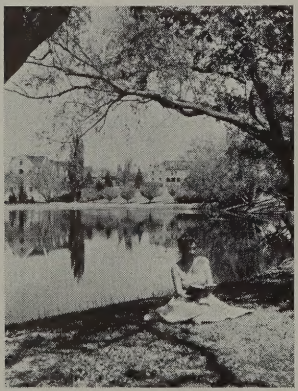
THE FRONT COVER



The University of Nevada campus has a beautiful setting and is one of the show places in the Reno area. Manzanita Lake, which is pictured on the first page, adds a delightful landscape effect. Along its shores are some of the classroom buildings and student dormitories. Trees, flowers, shrubs and well-kept lawns surrounding this pond, afford a delightful surprise to many persons visiting Reno for the first time. It also provides a cozy spot for a coed to concentrate on her scholastic work, not to mention possible romancing.

The University is a land-grant college and was originally established about the time the Comstock Lode at Virginia City was in full flower. With an annual enrollment of well over 1,000 students, the school affords higher training for Nevada young men and women as well as enrollees from out of State with close individual attention.

PHOTOGRAPHIC CREDITS

All color, and black and white on pages 2, 3, 6, 7, 11, bottom page 14, 15, 18, 19, 22, 23, 26, 27, 30 and 31 by Adrian Atwater, Department of Highways staff photographer; page 7 (top right), portrait by Everett Kroger, St. Paul Minnesota; page 10 (bottom left), courtesy Reno Chamber of Commerce; air-view of University across pages 10 and 11, courtesy Journalism Class, University of Nevada; page 10 (bottom right), courtesy Twentieth Century Fox; page 14 (top), Irwin Fehr, Ely, Nevada.

Engineering courses, including civil, electrical, mining, metallurgy and the associated sciences, are conducted at the University of Nevada. The campus has been surveyed, as this group of students is doing, more times perhaps than any other piece of property in the entire State.

Commencement Day at the University of Nevada.

The University of Nevada

By A. L. Higginbotham, *Professor of Journalism, University of Nevada.*

THE UNIVERSITY OF NEVADA campus is the largest college campus in the United States. It includes the entire State—all 110,960 square miles of it.

As Nevada's only institution of higher learning, the University of Nevada serves the needs for higher education wherever they develop in the State. And every Nevada community, practically every Nevada resident, is touched in some way by its activities.

This is a distinction in relation to its State held by no other university in America.

In a sense, the University of Nevada is Nevada.

It educates the State's youth for living and for earning a living, as they gather from all parts of Nevada, on its campuses in Reno and in Las Vegas. This is its main job but far from its only one.

From this foundation, it extends its services throughout the State to all who can profit by them.

It provides continuing education for nondegree and adult students through special courses in the Reno and Las Vegas areas and by extension courses which take faculty members on "educational circuit-riding" tours to many communities of the State, often 300 miles or more distant.

For those who cannot get away from home, there are study courses by mail, and the postman carries the "classes" of the University of Nevada to students in every "nook and cranny" of Nevada.

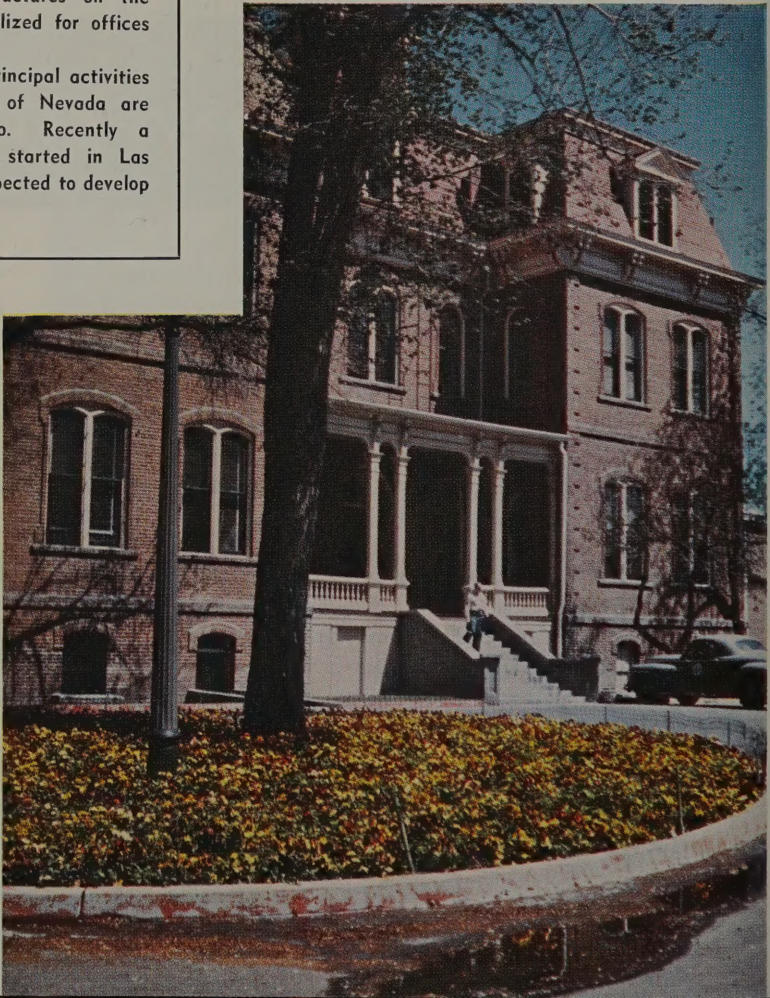
Every farm or ranch in Nevada is a present or potential classroom of this land-grant college and State University combined.

Agricultural extension agents of the University do their teaching of farm and home skills right on the farm. Their students are farmers and farm homemakers who are informal students of the University of Nevada.

Among them are the members of 4-H Clubs, some 1,300 in number, who are learning about farming and homemaking by doing as well as by studying. Each year, these boys and girls gather at the University's 4-H Club camp on the shores of Lake Tahoe, one of the most beautiful lakes in the world,

Nevada University is Nevada. On this page is reflected some of the serious activities of the school. Agricultural students learn from practical application of their training; part of the engineering class wades into the irrigation ditch to solve a hydraulic problem; the station wagon, with professor specialists, symbolizes the field work as carried to citizens away from the home grounds. The building at the lower right is Stewart Hall, one of the oldest structures on the campus. It is utilized for offices and classrooms.

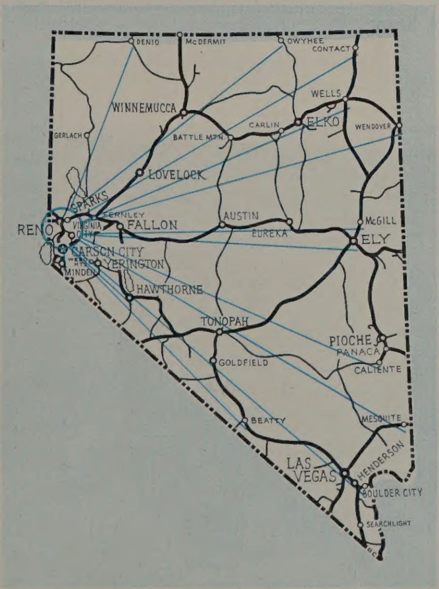
Currently the principal activities of the University of Nevada are centered in Reno. Recently a branch has been started in Las Vegas, which is expected to develop as the years pass.



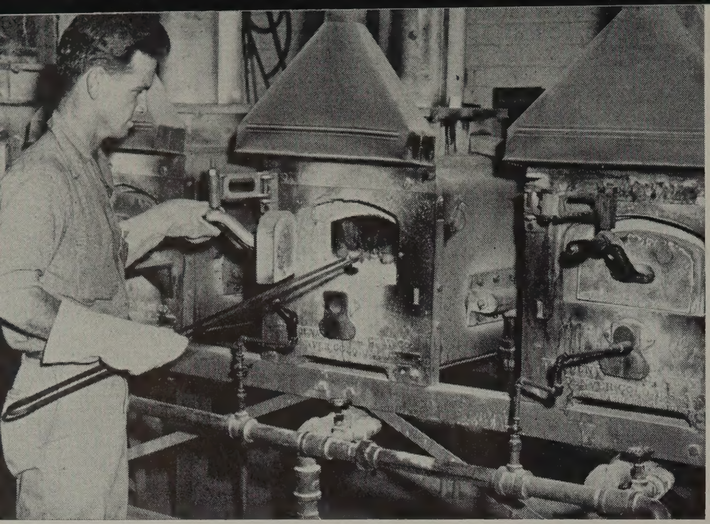
Professors Can Give Students Greater Individual Attention

The Alice McManus Clark Memorial Library contains thousands of volumes covering a wide variety of subjects.

The quadrangle of the University of Nevada has a picturesque setting.



University activities radiate to all parts of the State with Reno as the nucleus. Students come from every section of Nevada to take courses offered by this institution of higher learning.



another special branch of the campus, to take the "final examinations" in their courses.

Through its Veterinary Control Service, the University of Nevada offers facilities for the laboratory analysis of infectious and parasitic diseases of domesticated and game animals and birds. In this way, it has kept the State's herds and flocks, one of its greatest economic assets, notably free of many of the devastating diseases of livestock and poultry.

Research to develop the State's resources centers at the University of Nevada.

In agriculture, this activity is carried on by the Agricultural Experiment Station. Projects looking toward better livestock, crops, soils, and land use are under way on the campus in Reno or in field stations or on experimental plots in every county of the State.

Over the years, this work has helped keep the growing of animals and field crops, one of the State's chief industries, up to date in understanding and skills. Farmers of the State frequently express their appreciation to the University for this service.

Newest agricultural research to be taken on by the University is under a large grant by the U. S. Atomic Energy Commission. It deals with the effect, if any, of the atomic weapon tests on livestock in the vicinity of the southern Nevada proving grounds.

In the Mackay School of Mines, the U. S. Atomic Energy Commission finances research concerning possible improved methods of refining uranium ores, some of which are found in Nevada.

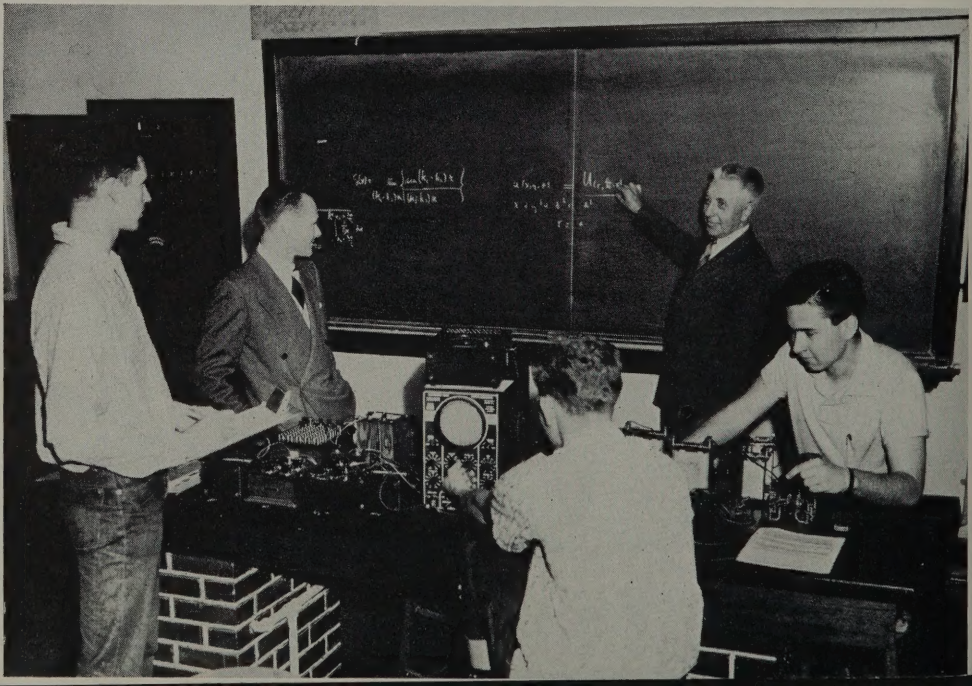
To help develop this industry, the University's Mining Analytical Laboratory assays, without charge, minerals, ores and rocks sent to it by Nevada prospectors, professional or amateur. Some important mineral deposits have been discovered through the help of the University.

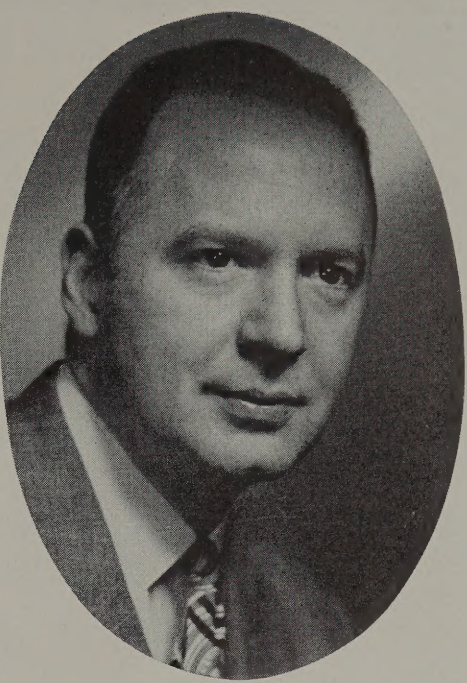
The Nevada Bureau of Mines, a part of the University of Nevada since 1929, surveys the mineralogical resources of the State and serves as a bureau of information on mining and mineral matters. Miners of the State constantly consult the bureau in their business.

Connected with the bureau is the State's gas and oil commission, which has been active in connection with the recent discovery of a commercial oil well in eastern Nevada.

Important as are these services which extend throughout the State, the main business of the University of Nevada is in the classrooms and laboratories on the Reno campus. It is to give to the young people of the State an education second to none in order to help them develop as individuals and professional men and women, both for their own benefit and for the building of the State.

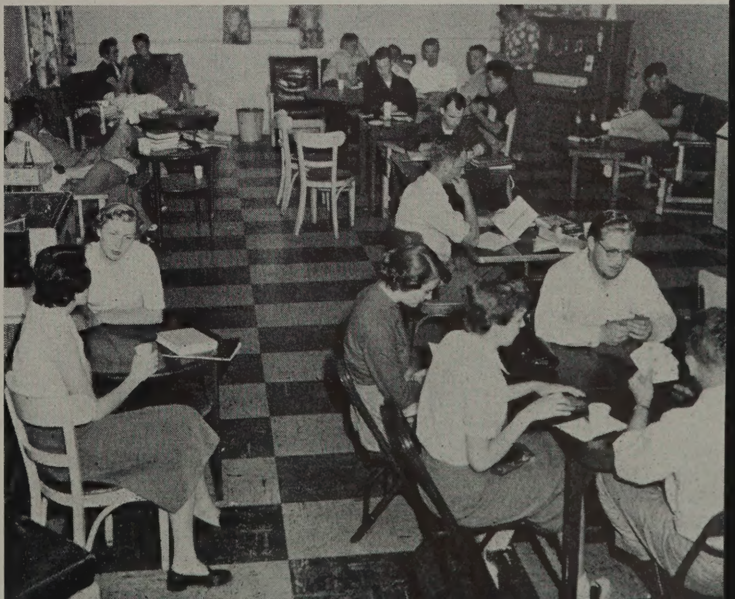
Mining engineering and metallurgy are emphasized at the University of Nevada, and many students enroll for the courses. Because Nevada is primarily a mining State, much attention is given to assaying, metallurgy, geology, and the treatment of ore. Thousands of samples, to be tested for possible value, are received and analyzed at the Mackay School of Mines each year. Full cooperation in their quest for new minerals or metal deposits is given to miners and prospectors in the State. The electrical engineering branch of the University has an excellent staff and ample equipment for teaching this science to its students.



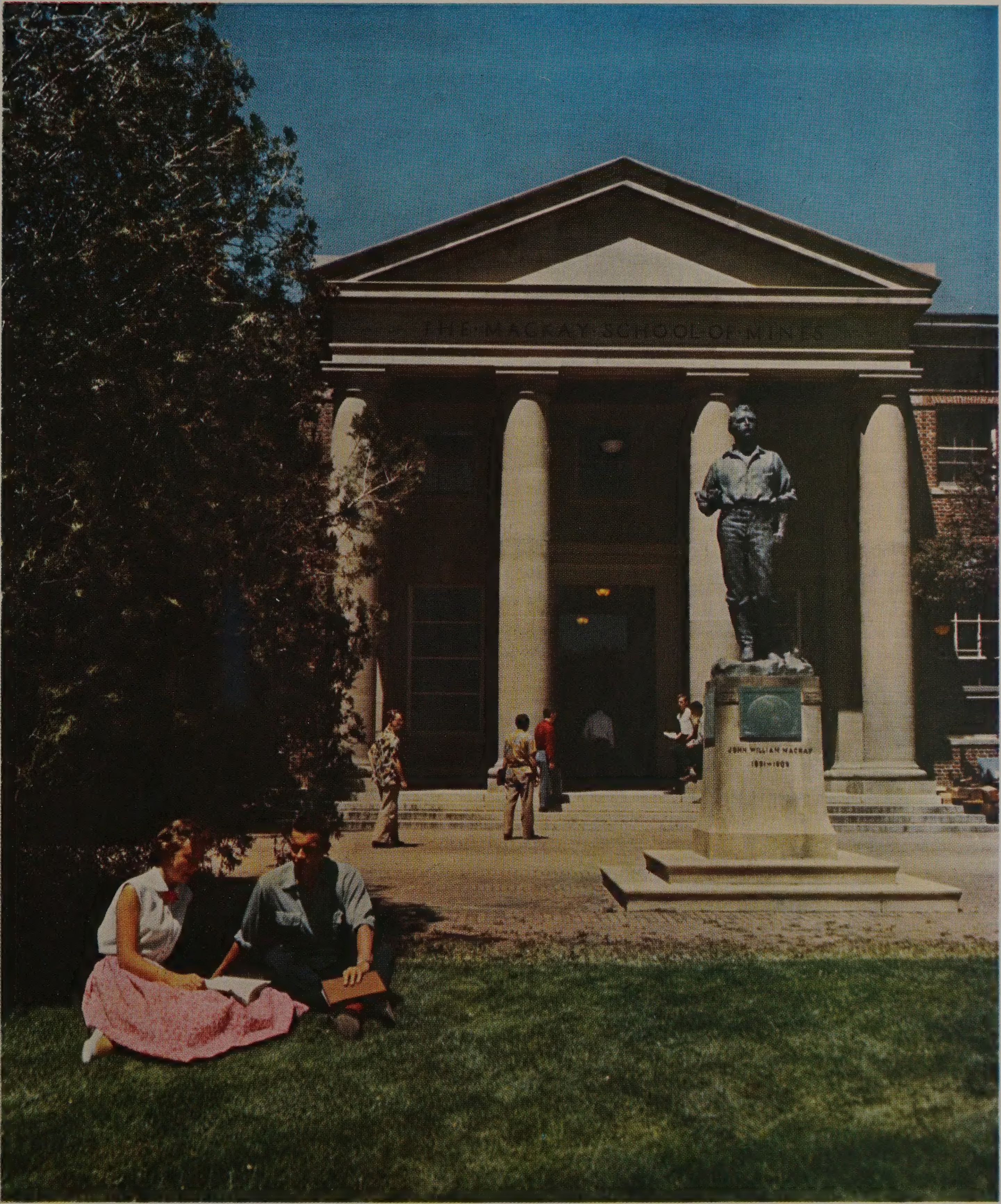


Dr. Minard W. Stout, President of the University of Nevada, whose administration has brought much progress to the institution.

The journalism class of the University of Nevada has graduated many students who have made their mark in the field of publicity, newspaper work and magazine writing. History classes, as shown at upper left, are conducted by close association between student and professor; and the art class always has its interested members. The lower right picture shows students in their recreational center, where social and scholastic contacts of a lasting nature are cultivated.



Through these gates have passed thousands of students who have moulded their careers in the hallowed halls of the University of Nevada.



John W. Mackay statue, in front of the Mackay School of Mines building. It commemorates one of the great benefactors of the University. Mackay was active and successful on the Comstock Lode, which the statue faces, in the days when Virginia City was booming. It was there he made his great fortune from the silver mines. John Mackay and his descendants have generously remembered the University in many practical ways.

On the 90-acre campus on the plateau on the north edge of the city of Reno, 38 buildings are set among trees, lawns, flowers, lake, and stream to form the cultural and professional center of the State.

The Reno campus is one of the beauty spots of the State. In summer, green and refreshing with its lawns and trees and bright with flowers, it is in sharp contrast to the drabness of the desert.

Thousands of tourists visit the University grounds each year, and, to many, it has a familiar look, although they have never been in the State before.

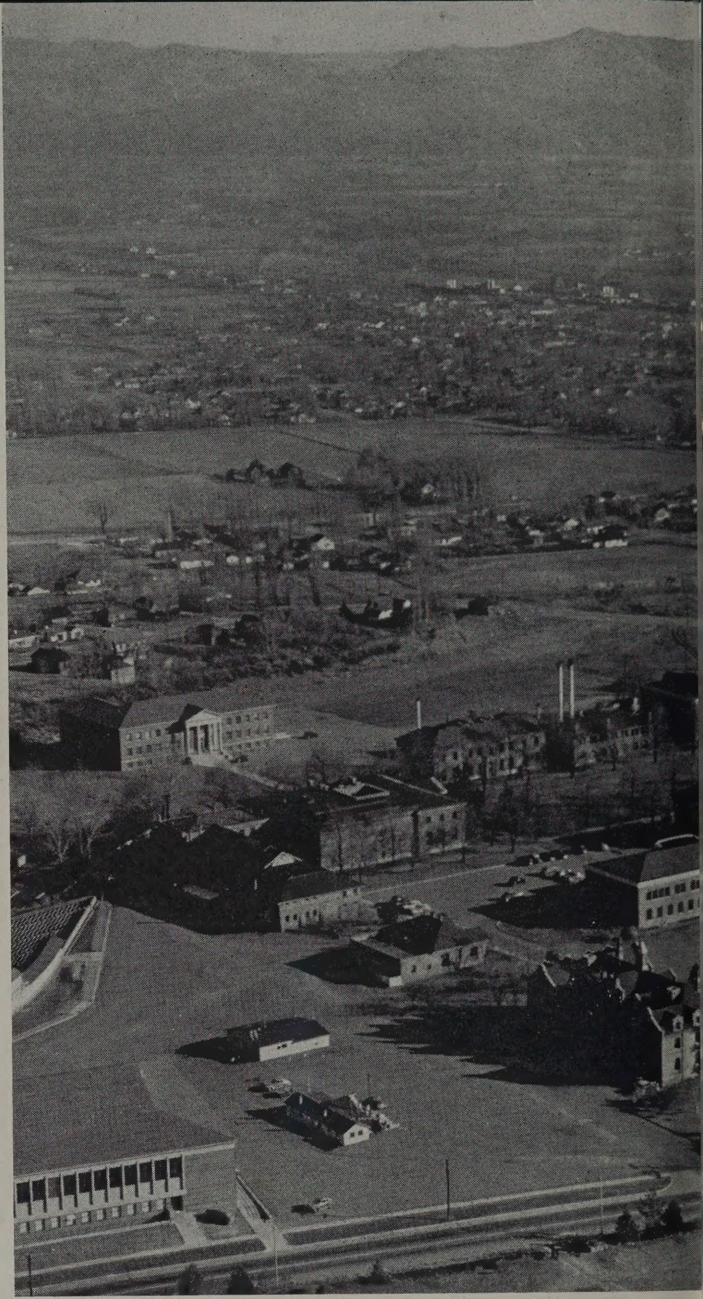
This is because its quadrangle, lake, athletic field, and halls of learning have been the setting of several top-ranking motion pictures in recent years. Included among these films are "An Apartment For Peggy" with Jeanne Craine in the leading role, which was rated the best picture of its year; "Mr. Belvedere Goes to College" starring Shirley Temple and Clifton Webb; "Mother Was a Freshman," featuring Loretta Young; and a couple of Andy Hardy pictures.

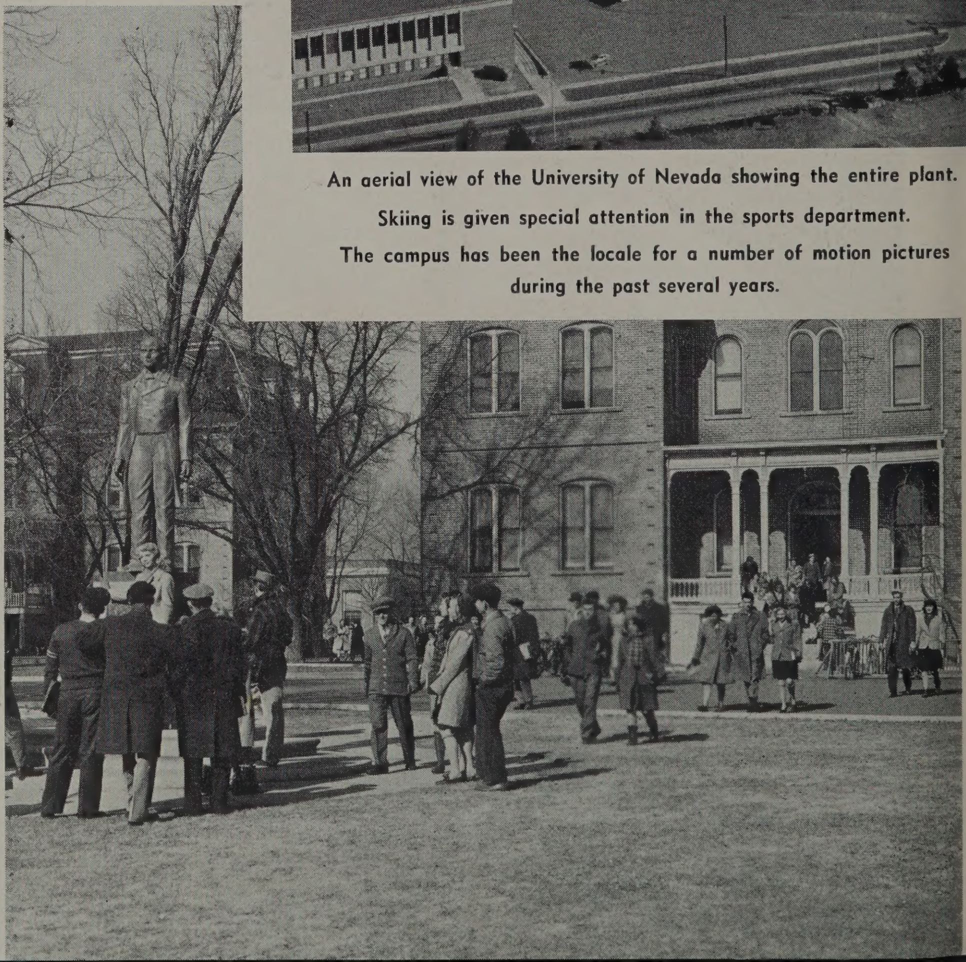
Although he never heard of Nevada, one of America's greatest historical figures, Thomas Jefferson, is responsible for the colonial brick and stone architecture and the quadrangle. The campus is patterned on that of the University which Jefferson designed.

The work of another celebrated American marks the Nevada University grounds. It is the bronze statue of John W. Mackay at the north end of the quadrangle. This tribute to one of the Comstock "big four" is from the chisel of Gutzon Borglum, sculptor of the noted memorial to Jefferson, Lincoln, Washington, and Theodore Roosevelt on a mountainside in the Black Hills of South Dakota.

The family of John W. Mackay has returned to Nevada, through gifts to the University, some of the riches which came, nearly a hundred years ago, from the great silver mines around Virginia City. Three buildings, the quadrangle, and the athletic field are named for the Mackays.

To this campus for 80 years young men and young women have come from their homes about the State for a higher education. They then





An aerial view of the University of Nevada showing the entire plant.

Skiing is given special attention in the sports department.

The campus has been the locale for a number of motion pictures during the past several years.

have returned as Nevada's professional, business, and cultural leaders to help build the State.

The University of Nevada is one of the oldest institutions of higher learning in the Far West. Provision for it was made in the State Constitution in 1864 and it was founded in Elko in eastern Nevada in 1874. The institution moved to the Reno campus in 1886.

Mining was one of the first studies offered, and many of the State's leaders in the basic industry are graduates of the Mackay School of Mines, which draws students, by its excellent course, from all over the world.

Another early course at the University was in public school education. Today, a large proportion of the State's school teachers come from the Reno campus.

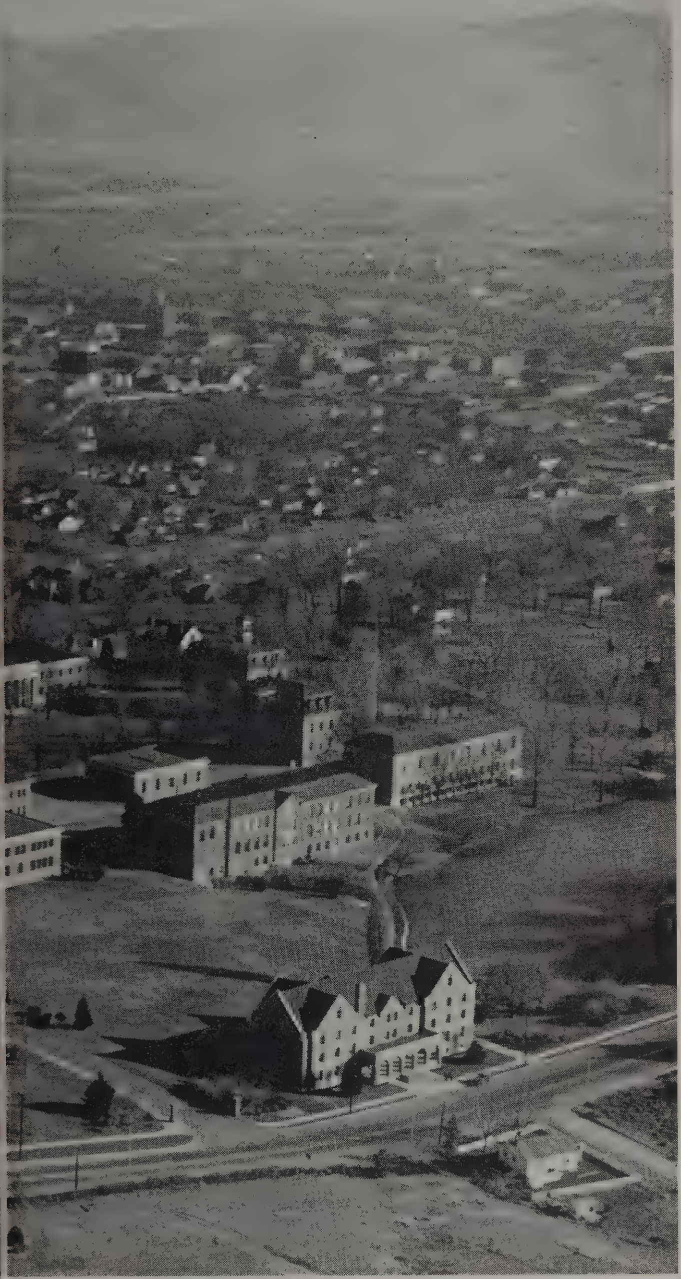
To carry on the great range livestock industry and farming in the State are graduates of the College of Agriculture. For Nevada is a land-grant college as well as a State University. The school of home economics supplies many of the State's high school teachers in this subject and its other professional workers in this field.

The University also supplies education in three other engineering fields—civil, mechanical, and electrical—which provide men to plan and build the State's excellent highways, its factories, and its electrical production and use of electricity.

University of Nevada graduates in journalism now work or have worked on nearly every newspaper in Nevada and among them are leaders of the Fourth Estate. Likewise, outstanding men in business started their training in this field on the Reno campus.

While Nevada does not offer training in medicine, dentistry, law and similar fields, its preparatory courses for these subjects have equipped Nevada young people to study them elsewhere and to return to Nevada to practice.

So, whether it be on an isolated ranch, a new oil well, the shores of Lake Tahoe, a mine shaft, a home in town or city, or the campus in Reno or Las Vegas, the entire State is the University of Nevada.



Teacher training is another phase of the University of Nevada curricula.

Here in the new gymnasium building thrilling State-wide basketball tournaments are held.

Nevada's First Oil Well, in Railroad Valley, Nye County, Eagle Springs Unit No. 1

Various scenes in Railroad Valley where Nevada's first oil well was discovered. Miles of pipe are on the drill deck of the rig. You are looking east towards the Grant Range. The giant "grasshopper" pumps oil from Nevada's first well every day. Coastal Drilling Company oil rig, with a view to the west in Railroad Valley. At bottom right is the control valve at the mouth of the bore.

Black Gold Comes To Nevada

NEVADA'S history books will identify 1954 as the year of the oil discovery in Railroad Valley, northeastern Nye County. Pin pointing it down a little closer February 17 is the day. On that date the Shell Oil Company, through S. F. Bowlby, vice-president in charge of the Pacific Coast area, disclosed in an official announcement at Los Angeles that the Coastal Drilling Company had struck oil in Shell's Eagle Springs Unit Number One well near Currant post office in eastern Nevada. Coastal Drilling, of Los Angeles, was on contract with Shell and at 6,450 feet the first strong indications of oil were noted.

This announcement warmed the hearts of every Nevada citizen and sent a thrill of delight to every oil man in the Nation. It was a thoroughly tamed wildcat and carried much meaning to the Nation's oil industry. Oil had been found in commercial quantity for the first time in Nevada.

Instead of halting the drill at the oil horizon, the company decided to bore deeper to get more information concerning underground strata through which the drill was passing. This work continued for some weeks before the drill encountered granite at a depth of 10,300 feet plus. Then drilling was stopped. The company plugged back the hole, came up to the oil horizon where pipe was set and everything made ready for production tests. These tests proved successful.

The company's announcement in February stated the oil was 26 gravity in quality and that the well could possibly produce 180 barrels daily. This was nothing spectacular but it

Walter Smith (top right), manager of headquarters and Frank Payne, field superintendent, pore over sectional maps in Shell's Ely headquarters office. Below is Elmer E. Fletcher, superintendent for Coastal Drilling Company, who brought in the first oil well. Lower left shows a gap in the Grant Range which opens into Railroad Valley, and at the right is Currant Post Office which may eventually become a "city of destiny" in the eastern Nevada desert.

Shell Oil Company is Successful on First Nevada Try

Members of the Nevada Oil and Gas Conservation Commission, Shell Oil Company officials, and field men at Eagle Springs shortly after the well showed its first oil.

was a beginning; the starting place of a new era in Nevada which holds promise for the future.

In late June when the well was placed on the pump it proved to be a better well than at first anticipated. It produced 350 barrels a day for some time, then dropped slightly. The gravity reading had increased to 27 degrees and the product showed only a 1 percent water content. Enough gas came with the oil to be separated, on the site, and this gas is now used as fuel to operate the pump motor. The well is still producing oil.

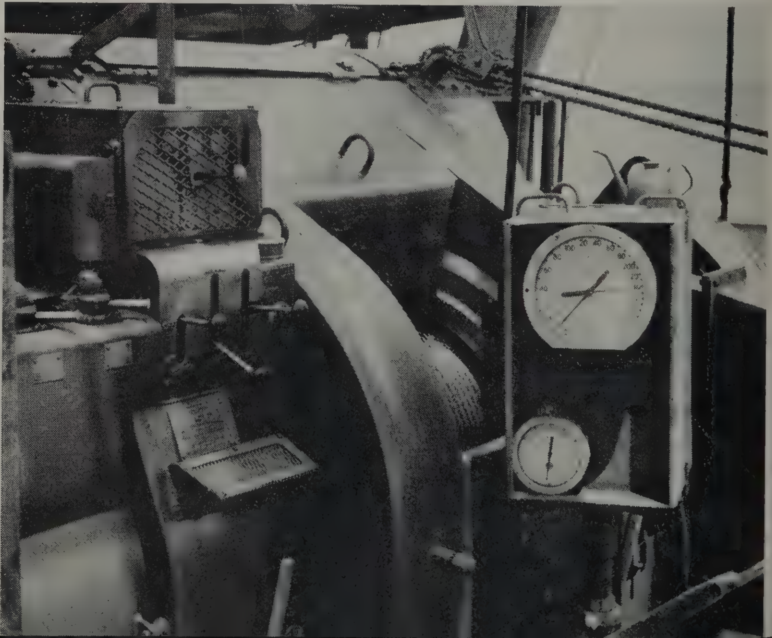
In a strange formation defined as a "pyroclastic rock" the finding of petroleum at Eagle Springs startled the entire oil fraternity, which expects to find oil in porous sandstones, limestones, or shales, but not in pyroclastics. Oil not only had been found in a State where, years ago, some scientists had predicted none could be found, but it was discovered in an entirely new kind of formation. Like gold, oil is where you find it.

Immediately the word was stressed that the original source of the oil had not been encountered but that the material recovered was obviously a migrant oil. Now the search is on, in earnest, to find the original source or sources.

Nevada, generally speaking, consists of mountain range after mountain range, with paralleling valleys, in constant, almost monotonous rows across the State from east to west. These ranges vary in length; some will extend 50 miles, others will stretch 150 miles in a northeast-southwest trend. Width ranges from 10 to 15 miles. Altogether more than 200 mountain ranges and valleys have been named. Others, smaller ones, are nameless in this Great Basin country. Crestlines reach 8,000 to 9,000 feet with occasional peaks crowning at

This is the kind of action you see on the drilling deck of an oil rig when the crew is "digging that hole."

These dials are the eyes of the driller. They show depth and drilling speed at all times.



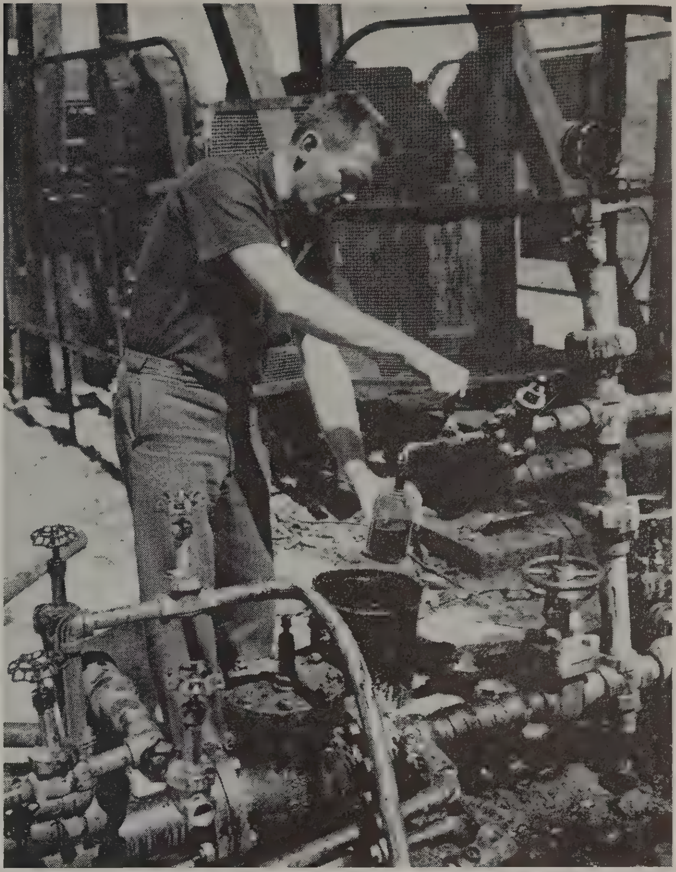
closer to 11,000 feet. The ridge lines cut the sky about 2,500 to 3,000 feet above the valley floors.

Great stretches of barren land extending for mile after mile characterize the topography of the State. Occasionally a large grove of cottonwoods or thinly scattered forests of juniper or pine appear on the landscape. Green meadows along small, meandering streams or surrounding water springs stand out conspicuously and add refreshing color to the picture. A lonely ranch house set among a few trees, parked farm machinery near outlying barns, grazing cattle in unfenced fields, and a windmill water pump mark the patches where some brave ranchers have undertaken a big job of making the land yield crops. That narrow black strip cutting across the valley and hurrying up the distant hill toward the summit is a paved highway which serves the district.

Occasionally a "dust devil" swirling up from a brown patch, void of vegetation, starts rolling across the land while gathering more dust and rising 200 feet or more into the air. They move along swiftly and generate considerable force. They usually start on the dry lake at the lower part of the broad valley.

The land seems a vast sea of sagebrush which reaches out as far as the eye can determine detail. Always, in the distance, the mountain mass lifts its rocky curtain high to completely enclose a big, broad, deep natural bowl. These are samples of the wide open spaces of the West as typified in Nevada. Strangers to this harsh land often become uneasy at the impressive solitude and enormous expanse of emptiness, but the natives love it and revel in the freedom of space and appreciate the ever-changing colors.

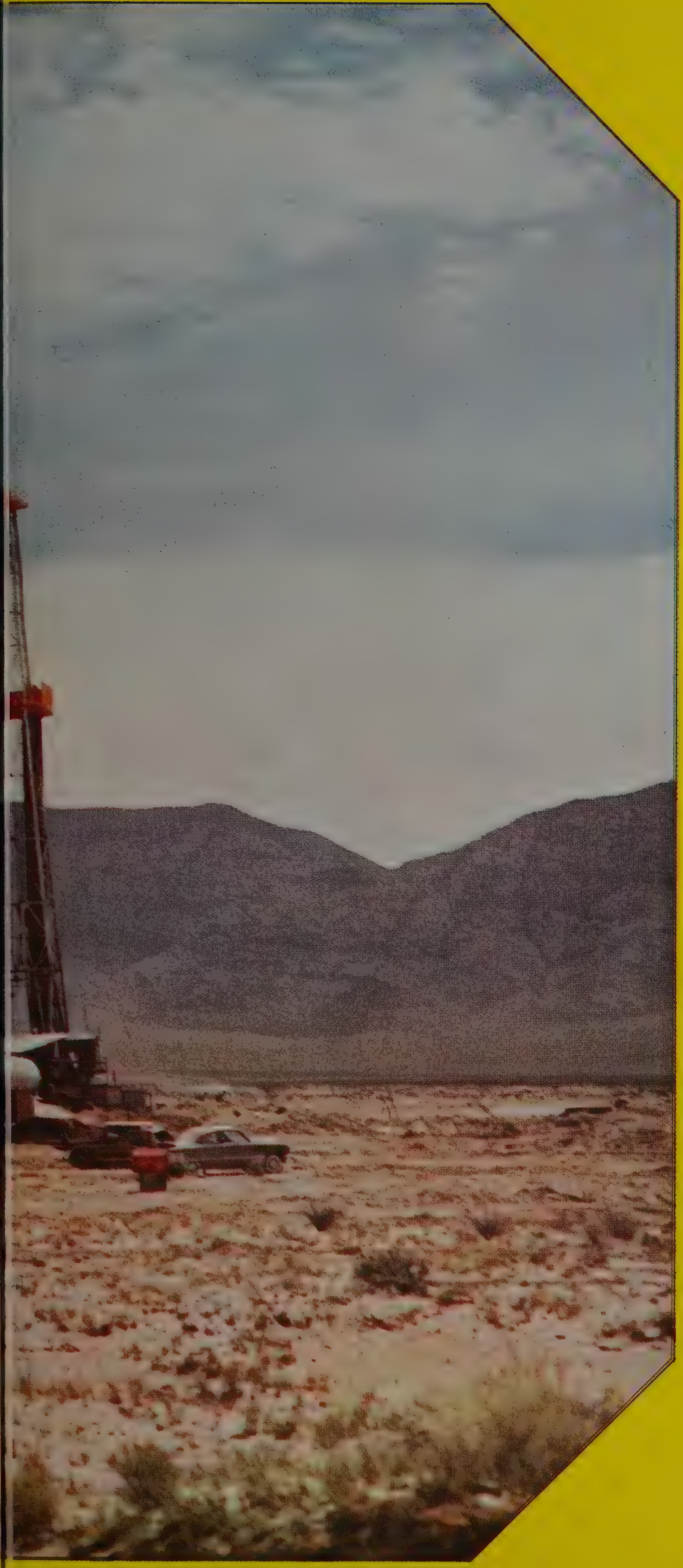
Many geologists after studying this area for years had come to the conclusion that it was unfavorable for oil production because of numerous fractures and rock dislocations on a gigantic scale. Hypothesis reasoned that oil traps, had they



This is what Nevada has awaited for years. Oil, for the first time, is being pumped out of the ground in Railroad Valley. That's really oil, brother.

This Coastal Drilling Company crew brought Nevada's first oil well into production in June 1954 in Railroad Valley, Nye County.

Oil is Found in Northeastern Nye County



OIL
IS A MAGIC WORD

Ever since Colonel Drake drilled the first producing oil well near Titusville, Pennsylvania, almost a century ago, the world has been hungry for "rock oil." This Nation uses an increasing amount of petroleum each year. Annual production and consumption figures are staggering. The machine industry and the oil industry have progressed in enormous strides during the last 50 years. The more machines the greater the need for oil.

This situation has stimulated private enterprise to search in many places for the black gold. In 29 States it is now being produced.

For the past half century attempts have been made in Nevada to find oil. Until the startling announcement came last February 17, that Shell Oil Company had struck oil in their Eagle Springs Unit Number One in Railroad Valley, which Coastal Drilling Company had contracted to put down, Nevada had never experienced the thrill of seeing oil come out of the ground. Now this is an accomplished fact. Although the quantity is very small, 240 barrels per day, the event ushers in a new era in the State's economic program. The word "oil" spread like wildfire throughout the State last February and created great excitement. Soon afterwards many dormant forces were aroused into action toward the objective of greater production in Nevada. Now the search for more oil is on in dead earnest.

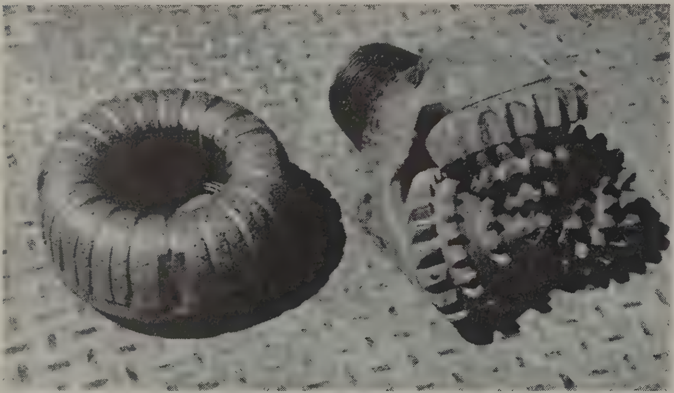
Nevada's one well does not make a field, but it is a beginning and within a few years the full impact of the sensational discovery will be felt all over the State. The Nevada desert is about to come into its own.

Eagle Springs Unit Number One, before the rig was taken down and the well put on the pump, in its desert and mountain surroundings of Railroad Valley, northeastern Nye County, Nevada, is shown on these pages.

ever existed, would be disturbed and broken by the terrific earth movements which occurred during the geological past, but the premise indicated that the sea had covered this part of the land during Cretaceous and previous geological times. Fossils in great numbers and wide variety, plucked out of the limestone layers and dug from the outcrops on the mountain tops, verified these conclusions. So the possibilities for oil, originally, were excellent. In fact the scientists declare that Nevada, some millions of years ago, had plenty of oil.

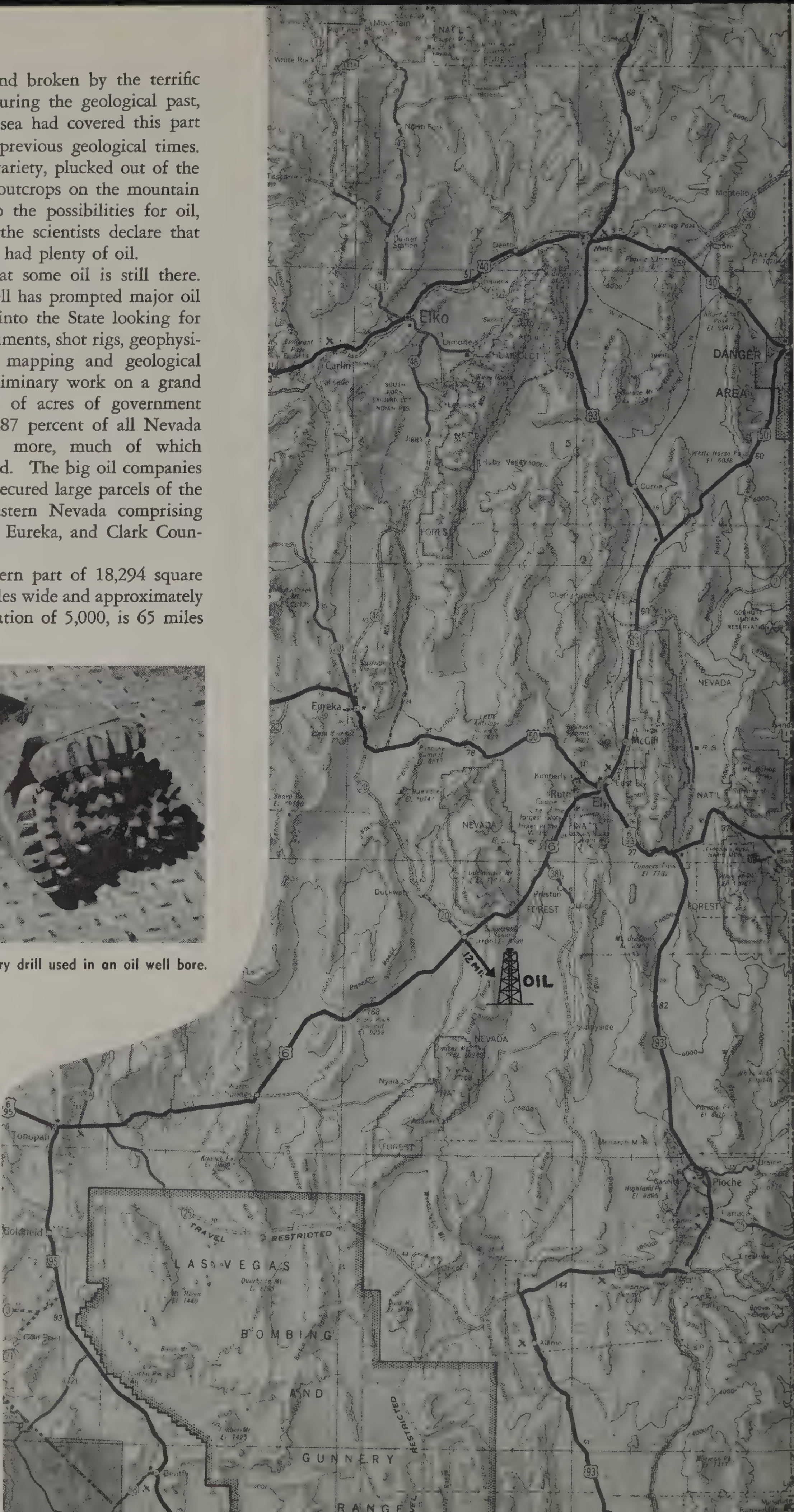
At least the first well proved that some oil is still there. The finding of petroleum in this well has prompted major oil companies to send their field men into the State looking for it. Field crews with surveying instruments, shot rigs, geophysical testing gadgets, seismographic mapping and geological determinations are carrying on preliminary work on a grand scale in eastern Nevada. Millions of acres of government land—and Uncle Sam owns about 87 percent of all Nevada land—have been leased; millions more, much of which embraces mountains, remain unleased. The big oil companies and many individuals have already secured large parcels of the more than 60,000,000 acres in eastern Nevada comprising White Pine, Elko, Lincoln, Lander, Eureka, and Clark Counties.

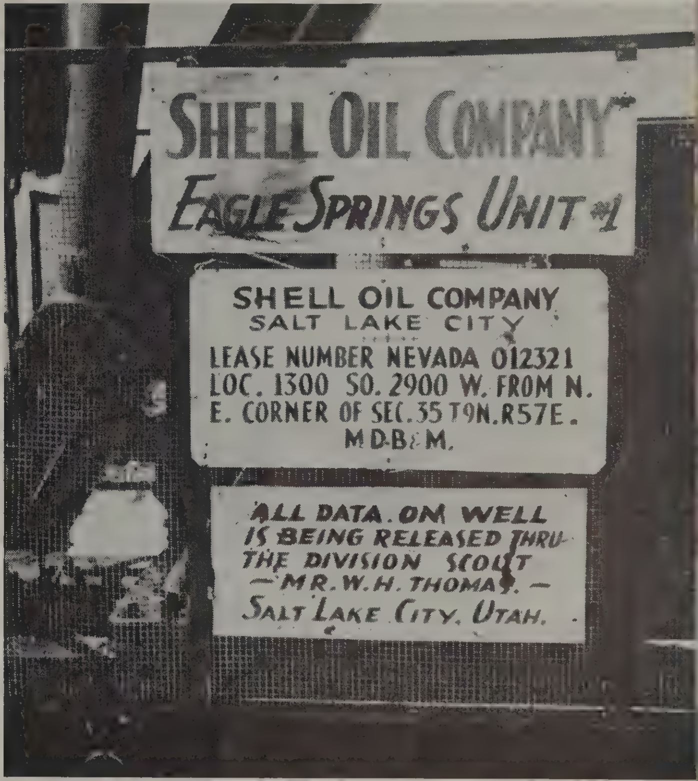
Railroad Valley, in the northeastern part of 18,294 square miles of Nye County, is about 20 miles wide and approximately 100 miles long. Ely, with a population of 5,000, is 65 miles from the well.



A diamond drill bit and the ordinary rotary drill used in an oil well bore.

Railroad Valley is a real desert country. There are few trees anywhere. Currant Post Office 12 miles northwest of the "wildcat" has some gnarled cottonwoods, three or four houses, a small store, saloon, gas station and is a delightful oasis. About 3 miles east of the well site the Grant Range forms a roadblock. To the west is the Pancake Range. A lonely ranch or two between Currant and Lockes, 35 miles apart, is all there is to show that human beings make their home there. Otherwise the eye sees little but a boundless stretch of sagebrush land.





Ely (top), right in the center of the oil play at present, 65 miles northeast of the Eagle Springs Unit Number One, is happy about it; Tonopah (bottom) has a strategic position because it is the Nye County seat. Tank trucks and trailers of this type haul the oil to the refinery. At right the identifying marks at the well site which gives specific location of Nevada's first oil well.

From halfway up Kingsbury Grade the entire Carson Valley opens out into a broad sweep toward the east.

Lake Tahoe, a gem of water with sandy shores, is surrounded by a field of forests and granite mountains.

Carson Valley Days Are Festive Days In Minden, Gardnerville and Genoa, Nevada

BASKING in the shadow of Job's Peak and Job's Sister, twin 9,000-foot crowns of the Sierra Nevada Range in western Nevada, are two splendid small towns—Gardnerville and Minden—marketing centers for the broad Carson Valley. Carson Valley, approximately 30 miles long by 18 wide, contains some of the richest farm land in the State. This picturesque valley lies just over the hump, east of beautiful Lake Tahoe. In fact, the Douglas County boundary includes a section of this high mountain lake. Over the winding Kingsbury Grade the climb is about 2,500 feet from the valley floor in about 12 miles, but the grand scenic features accessible over this route more than make up for the slight inconvenience of a graded, dirt road with climbing curves. The Clear Creek highway, farther to the north, also serves as an access route for the Carson Valley folks.

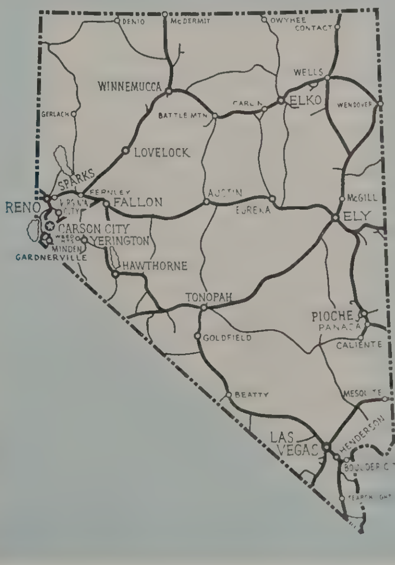
The Carson River, starting in the high hills southwest of Carson Valley, nourishes the lands in the valley through irrigation canals to bring bounteous annual crops of hay, grain, vegetable truck, poultry, cattle, sheep, hogs, and dairy cattle. Carson Valley ranches specialize in dairy products and some of the finest butterfat, milk, eggs and poultry products come from there. Two grist mills serve the neighboring population as an outlet for their grain.

About 100 years ago the first settlers arrived at attractive Genoa in western Nevada. They were sturdy folk who made the dangerous cross-country jaunt in covered wagons about the time that the California gold rush was in progress. These thrifty people, many of German descent, recognizing the richness of the soil took up homesteads, sweated to work the land, and were rewarded for their efforts in achieving success in developing one of the richest farming sections in western Nevada.

Gardnerville came into being with the coming of more settlers, while nearby Minden developed some time later. When county boundaries were defined by the Territorial Legislature in 1861, Douglas County was one of the original nine. It

Carson Valley Day parade marching through Gardnerville.

A cozy rural home in the town of Minden, Carson Valley, Nevada.



Carson Valley is served by highways U S 395 and U S 95.

included a considerable part of the Lake Tahoe region and in early days this meant much timbering and became the principal lumber producing county of the State. Even to this day lumbering is carried on in the upper reaches of the mountains in the heavy forest areas near the lake. Carson Valley embraces more than 50,000 acres subject to irrigation and cultivation and has much additional pasture and grazing land within its mountain-enclosed area. Climate is excellent for dairying purposes and the residents have developed an important butterfat producing industry in addition to milk and other products.

The Mormons came first to the valley and settled at Genoa in the extreme western edge at the foot of the range, but Gardnerville and Minden developed a more strategic location toward the center of the valley.

Population of the entire district does not exceed 5,000 and those who work the land are the descendants of the pioneers. The younger generation has taken up the tasks where the older folks left off, with good success. In the early days the farmer's work was done by hand labor and the sweat of the brow, but

When Carson Valley folk get together one of their first concerns is food, and when they meet for a congenial event they provide plenty of it. Home products of barbecued beef, pork, and lamb, fixed in an inimitable style, are served to all the celebrants. A special recipe concocted by local chefs gives the precise touch of seasoning to this tempting dish. Hungry people are usually impatient so the Gardnerville, Minden, and Genoa folk have installed a conveyor belt to facilitate serving at Minden's Public Park. The arrangements committee always sees to it that there is plenty for everyone. Before and after the dinner bell, contests of a varied sort are conducted by local ranch hands and real buckaroos. Indian games and races attract interest.

the present generation, thrifty yet progressive, has adapted the mechanical appurtenances to successfully carry on the work.

On Carson Valley Day folks come to Gardnerville and Minden from all sections of the valley, as well as the western part of the State, to join in celebrating the occasion.

These celebrations are arranged by the local 20-30 Club, civic groups, the Chamber of Commerce, business and professional men, as well as ranch hands, in complete harmony to make it a successful event.

Topping it all is the famous barbecue which the ranchers and town folk claim is the finest in the land. More than 2,500 pounds of choice Carson Valley beef, pork and lamb are prepared for the hungry crowds, and this is supplemented with plenty of trimmings. All that goes with a real picnic is supplied in bounteous quantity and no one ever leaves the Minden Public Park hungry. If he does it's his own fault.

The barbecue pit is usually dug and the fires started the day before the celebration, and the barbecued meat is well done by the time the crowd is ready for the piece de resistance.

Carson Valley folk have a special recipe for the barbecue meat. In 25- to 30-pound chunks the meat is carefully wrapped first in muslin then in burlap. The process of seasoning and wrapping takes considerable time. The meat is then placed on the coals and covered with large strips of tin, which in turn are covered with sand to retain the heat. On the day of the celebration the meat, all juicy and done, is trucked to tables where it is carved and served to the assembly, along with all the trimmin's a gourmet could desire. Last year a conveyor belt method was used to facilitate the serving of food to the multitude and it worked out to complete satisfaction.

To finish up the day, dancing for young and old, in both Gardnerville and Minden, is programmed.

Practically all visitors to the Carson Valley Day celebration come in modern cars and make the journey in comfort and good time. In the early days of the event many of the visitors had to resort to horse and buggy gear, but not any more.

Hiding behind their beards these Carson Valley men await the judges' decision.

Horse racing keys up the interest for the home folk at the celebration.

It's the Echubicereus Engelmannii or the calico cactus, whichever you prefer.

This Spanish bayonet likes southern Nevada as a home.

Nevada wild almond, or wild peach is a long-time resident of western Nevada.

The beavertail cactus thrives in the southern Nevada arid country.

The hairy verbena and dune primrose are plentiful in the Las Vegas area.

Flowers Which Add Color To The Nevada Desert

DON'T be surprised, if while driving over our southern Nevada highways you see a lot of wild flowers on the desert nodding a cheerful greeting to you in their most charming manner. Colorful blooms of hardy plants of a great variety, cover wide areas in this open country and speak the equivalent of "Welcome Stranger." They will be at their best in the spring and early summer.

Wild flowers, in great abundance, will expose their glamour all around you and reflect the friendly spirit of the West. In the canyons leading back into the mountain deeps, or on the lower flanks of the hillsides, they will stand out conspicuously and wave, in a gentle breeze, a hearty greeting. You can almost hear them say "Enjoy Yourself."

Various species of cactus are plentiful and grow over a wide zone in the southern Nevada area. The beavertail, the calico cactus, and the barrel cactus are the most common and range from Tonopah to the River. The beavertail displays brilliant red and various shades of magenta and occasionally white flowers, and grows 3 to 4 feet high in places. The calico cactus, with a purplish-red flower, is a beautiful and showy plant growing to a height of 6 to 12 inches. The flower of the deer-horn cactus is a burnished yellow. It is a much-branched, long-stemmed, cane cactus, and is very plentiful in the southern part of the State.

The barrel cactus favors canyon areas and there are many of them along the road to the Colorado River in Eldorado Canyon. This species can be seen in great numbers nearby and along the road, on steep hillsides, clinging to rocks in small crevices, or finding a suitable niche in the face of a cliff.

The Spanish bayonet, one of the lily family, whose flower is whitish with a purple tinge, grows profusely in the "banana belt" of the State. Especially near Goodsprings and in the Searchlight area, one finds them in their hardiest condition. South of Beatty the plants spread out over several square

Desert mallow with a grenadine to peach-red flower grows in the Davis Dam area.

Wooly marigolds add their golden color to the Nevada desert.

The creosote bush grows to ten feet high and is covered with small yellow blossoms.

miles. The cucumber-like fruit was used by the early day Indians as food. It is also known as the Mohave yucca or the Spanish dagger.

Desert mallow, when mature, displays a flower ranging from grenadine to peach red. It is a very common but handsome plant found along the unpaved shoulders and slopes of the highways, grows 12 to 30 inches high, and is found in single-stem plants or in the bushy form. This plant is referred to in some localities as the "sore eye poppy" as the plant hairs have an irritating effect on the eyes, according to the lore of the Indians.

The California dalea belongs to the leguminosae, or pea family, and has a beautiful purple flower. It is a woody shrub, 2 to 5 feet high, and grows over a wide range of the southwest deserts, and will thrive at elevations up to 3,500 feet.

Another beautiful desert flower which can be seen in the southern Nevada country is the hairy sand verbena, which is a member of the four o'clock family. It has a rose-purple flower, is beautiful and fragrant and favors sandy spots and dunes for its growth. It is usually a good neighbor to the woolly marigold and the dune primrose.

The dune primrose, a member of the evening primrose family, has a white flower with a pink turning. It is a strikingly sweet-scented plant growing in sandy spots and is found in the Las Vegas area.

A member of the sun flower family, the woolly marigold is seen in many places of southern Nevada. It favors sandy spots and places along the roadside. In the flat country south of Railroad Pass and Boulder City, about 20 miles out of Las Vegas, each spring these dainty yellow marigolds put on a show which covers many acres. From March to May, depending on ground moisture, this area is carpeted with marigolds, later to be followed by desert dandelions, with many other varieties thrown in, to make it a really delightful desert scene.

The creosote bush lends its loveliness with its dark green foliage, yellow blossoms, and white cotton-ball clusters of seeds. It is a beautiful bush, grows to 10-feet high and is a pretty sight when covered with yellow blossoms. Later it becomes more striking in appearance when full of the white,

Many stands of Joshua trees are found in southern Nevada, the best specimens showing up near Searchlight along the Davis Dam road. There trees grow to 25 feet in height, and when moisture conditions are favorable a dozen or more blossoms can be seen on the larger trees. The ground lizard is often seen peeking out from rock crevices or over the top of small boulders.

Lizards are interesting but curious little creatures sporting colors which blend with the desert landscape. Many different species live among the rocks and crags. Upon approach, lizards will assume a defiant stance and watch proceedings until you get too close. Then they scamper under a rock out of harm's way and peek around the corner watching every move you make.

fuzzy seed balls. These are seen at their best in the Beatty area.

Of the many varieties of wild flowers splashing their colors over the desert landscape in southern Nevada, the Mohave aster, a member of the sun flower family, with its violet to lavendar or almost white bloom, is very plentiful along the highways, particularly in the Beatty and Indian Springs vicinity.

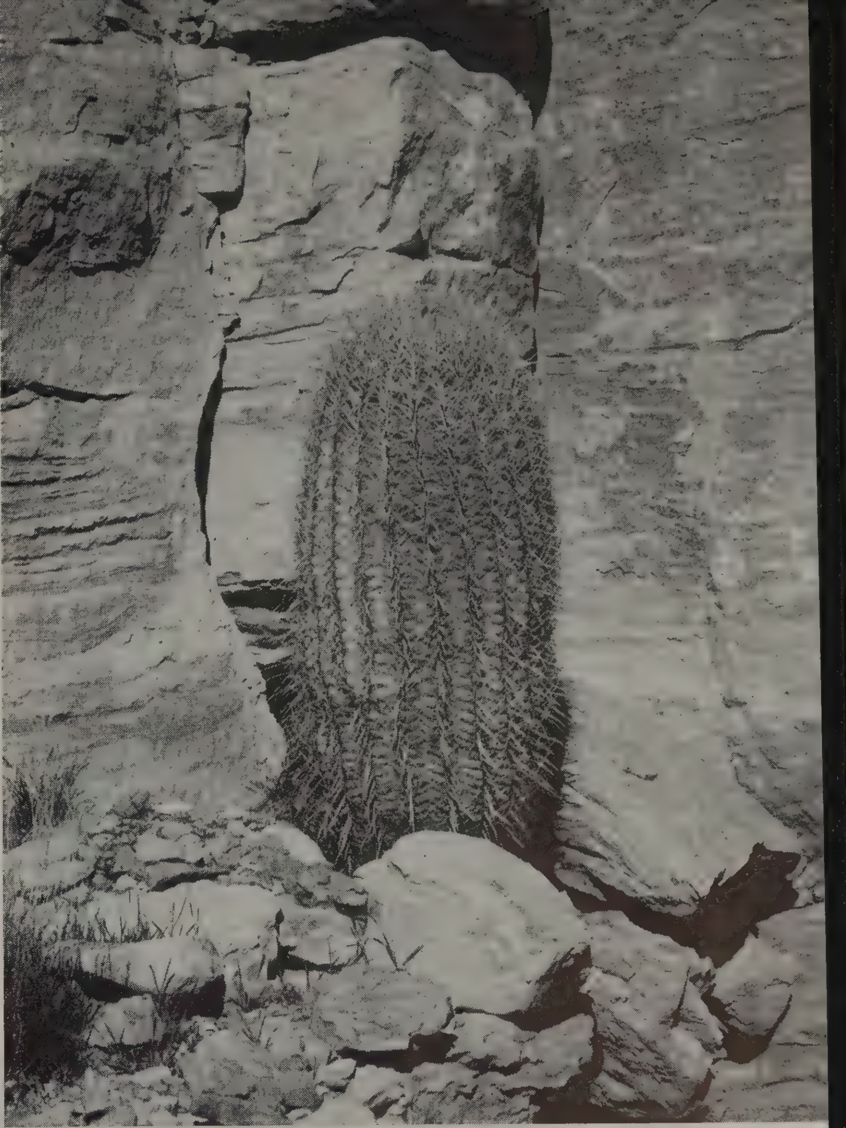
Arizona lupine has a reddish light blue or reddish purple flower and is a very common plant along the roadside on the Davis Dam road.

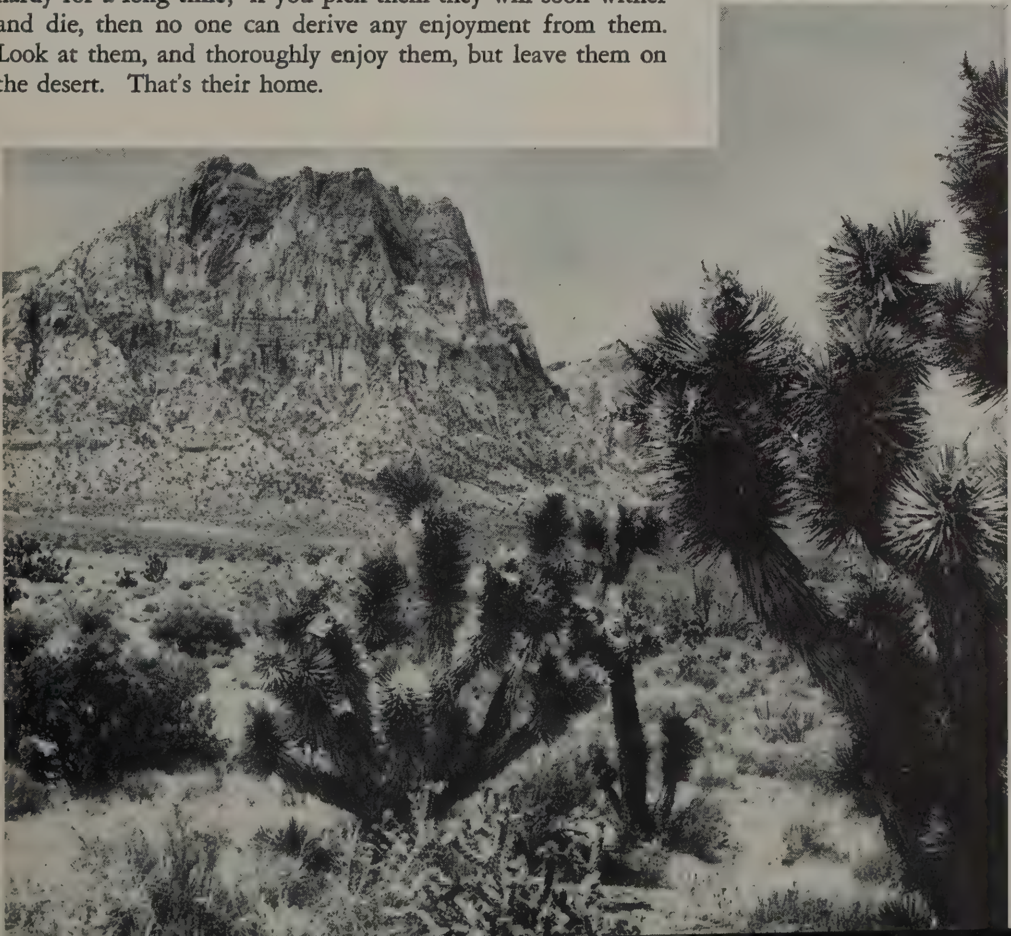
Desert holly, a member of the pigweed family, can be noted away from the highways, from Beatty south. It is found in scattered sections, and in recent years has come in great favor as a holiday season plant. It is silver white in color and the fresh plant leaves are velvety and soft to the touch. It presents a delightful contrast to the green Christmas holly, which it resembles in miniature, when folks use it for home decorations at Christmastime.

The southern Nevada country, or the "banana belt" as it is fondly referred to at times, presents a series of gradually sloping valleys surrounded by high, barren mountains. The hardy flowers find their sustenance in the sandy, gravelly soil, and dot the landscape with their most striking colors.

Along any of the highways or byways out of Las Vegas, Henderson or Boulder City, during the season, the flowers named here can be seen at their best. Some flowers are in bloom throughout the year, although during the months of December, January, and February they are not so numerous.

The desert flora is for everyone to admire and enjoy. They should not be picked or uprooted. Their beauty should be shared by all who visit the Nevada desert. Nevada has a State law which prohibits the picking of wild flowers, and it should be fully respected for these flowers will give pleasure to others if they do not disappear through your thoughtlessness. On the desert, in their element, they will remain fresh and hardy for a long time; if you pick them they will soon wither and die, then no one can derive any enjoyment from them. Look at them, and thoroughly enjoy them, but leave them on the desert. That's their home.





Brown with a red tinge and having thousands of thorny spikes sticking out as a protective net the barrel cactus, sometimes 5 feet high, finds niches in rock cliffs or on rocky hillsides a favorite place to grow. The tiny flowers, of varied color but usually pink or red, are delicate and delightful to see.

The picture to the left was taken in Red Rock Canyon near Las Vegas where the Joshuas grow in numbers.

Besides the heavy growth of Joshua trees found in Blue Diamond and Red Rock canyons, other zones exist in Lincoln and Nye Counties. The line of demarcation is sharp just a few miles north of Goldfield where the outpost sentinels stand guard. Proceeding southward the number increases and persists to the Colorado River which is the Nevada boundary line. Near Indian Springs, about 40 miles north of Las Vegas, they occur in scattered and scrubby formations.

Nevada is an excellent hunting ground for arrowheads and gem stones. Many hobbyists have large collections, of unique design, of arrowheads of a variety of sizes and kinds. You'll find arrowheads in the right places in almost any section of the State. Indians had their camps and their arrowhead factories along lakes and streams, and if you know where to look you are likely to come home with a dozen specimens or more to reward your search. Near dry lakes, along low ridges near the streams, or ancient stream beds, in sand dune country, or other places obsidian arrowheads, and chips, or knives are picked up.

Gems are plentiful too, but you'll have to search closely for them. Once you find a deposit the job is to keep it a secret, for not many gem hunters like to disclose a favorite spot unless the supply is great. It's fun finding your own and there are lots of likely places in the State. All kinds of gem materials, from opals to turquoise, can be found but you will have to be energetic to recover the jewels in the rough.

Opals of a variety of sizes have been found in northwestern Nevada. Most of them flash brilliant fire and are exquisite in color and tone. One of the largest opals ever discovered was dug out of its clay matrix in northern Washoe County some years ago. It now reposes in the Metropolitan Museum, in New York City. It is as big as a brickbat and valued at $250,000.

Black garnets have their special appeal and challenge the gem hunter to find their hiding place in the deep recesses of the desert. When found in perfect crystal form they are much desired. Some of them are as big as walnuts; others much smaller. Amethyst and quartz crystals with stibnite inclusions occur rarely in Nevada.

NEVADA THE SILVER STATE IS A ROCKHOUND'S PARADISE

By JANE ATWATER, *Carson City, Nevada.*

NEARLY all of the people in Nevada are "rock happy," as well they might be, for Nevada is the "Paradise of the Rock Hounds." A seven-year-old youngster on his way to the nearest sand lot for a game of baseball will pause to pick up a rock, spit on it knowingly, rub it on the leg of his levis and scrutinize it carefully for "colors." A doctor will weight the papers on his desk with a chunk of jasper or a large quartz crystal that he found himself. The attorney in the office next door might have a piece of a petrified log for a door stop. The real estate man down the street probably has a collection of gold ores from various mines in the State.

Entire classes of grammar school and high school students go on trips to gather specimens of rocks, minerals and ores to study in their classrooms. And in Nevada it isn't hard to find a teacher for them, even if that isn't his specialty, because the interest in geology and mineralogy is widespread. Rock gardens made completely from petrified wood, or the beautiful green malachite or quartz crystals add a touch of color seldom seen any place else. Rocks line driveways, form fences and otherwise beautify many Nevada homes. Even in cemeteries it is not unusual to see piles of colorful rocks in place of the flowers ordinarily placed on the graves as a mark of respect.

Week-end trips are planned with the same enthusiasm as if it were a picnic. With the modern car there is no place too far away from home for true rockhounds to travel for material. Many of the cocktail lounges, especially in the smaller towns, have glass-doored cabinets filled with glittering bright-colored

Gem stones as jewelry are much favored by Nevada women as bracelets, finger rings and earrings.

Prospectors for gem stones and arrowheads hike far into the Nevada hills to locate their quarry. They start at break of day and travel far. With a bedroll and a bite to eat, "roughing it" for two or three days is a great outdoor Nevada sport.

stones and minerals. The Nevada State Museum at Carson City, capital of Nevada, has a large room devoted entirely to minerals, ores and gem stones, and another room is filled with artifacts of the Stone Age. The University of Nevada at Reno offers excellent courses in minerology and geology. Whenever a group of men gather on a street corner in any town, sooner or later one of them will take a specimen of some sort from his pocket to be passed around and "hefted" thoughtfully by each one.

Rock hounds can be divided roughly into five classes, although several of them might overlap. There are those who collect only the gem stones, taking them home to their own lapidary shops where they cut and polish the stones into cabachons. These "cabs" can be effectively displayed on cards or mounted in rings, pins, bracelets, necklaces, earrings, cuff links, tie clasps, buckles and buttons.

The second class aims for a complete geological collection of the igneous, sedimentary and metamorphic rocks. The volcanic origin of the State makes it a fairly simple matter for the collector to soon acquire shelves full of rocks neatly labeled Obsidian, Pitchstone, Scoria, Basalt, Traprock, Pumice, Tuff, and Agglomerate. The vast lakes that covered the land when the volcanoes subsided from 15 to 20 thousand years ago formed the huge layers of sedimentary rocks such as sandstone, catlinite, argillite, wonder stones, limestones and dolomite. Metamorphic rocks are those that have been changed from one form into another by the upheavals of nature, heat, pressure, water and time. Serpentine, marble, slate, agates, quartzite and various types of petrified wood are but a few of the specimens to be collected by the rock hounds of the State. The fossils of animal life of millions of years ago form a collection in themselves. Giant earth worms measuring an inch and a half in diameter, huge slug-like creatures turned to stone, shell fish and prehistoric snails can be found firmly imbedded in limestone. A white mountain near Eastgate yields fossil leaves to the chisel of the hunter.

The third collector goes into the night with his black light, collecting many fluorescent specimens such as powelite, molybdenite, green chalcedony and a type of opal that fluoresces. This can be the most dangerous kind of rock hunting because a scorpion will show a brilliant yellow and rattlesnakes assume a rosy glow under the dark light. A scorpion's bite will make one sick enough to spoil his hunting, but rattlesnake bites have been known to kill panic-stricken people.

The prospector type collects ores—gold, silver, copper, tungsten, cinnabar—whatever kind particularly appeals to him. The prospector, as in bygone days, searches for "pay dirt," whether it be a new strike in a country already famous for its rich lodes, or a mine lost when winter, Indians, or loneliness drove its owner back to civilization and he couldn't find his way back to the source of his treasure. Today the prospector usually drives a jeep that has replaced the faithful burro. His equipment might include such modern innovations as an air mattress, gasoline lantern and a Geiger counter, but the dream is still the same. Riches far beyond the limits of his imagination crowd out all other thoughts and impel him onward into forsaken places. The dream might be of gold or silver, but more and more prospectors are looking for that ore of all ores, uranium.

The last class of collectors hunts for Stone Age artifacts left by ancestors of the Indians, such as arrowheads, spear points, stone knives, manos (hand stones), matates (grind stones), mortars and pestles. A Federal law prohibits digging in the ground or excavating in caves, but surface hunting is permissible.

Nevada rock hounds have organized mineral societies in Carson City, Reno, Fallon, Tonopah and Las Vegas. Five clubs seem like a small number for so large a State, but when one considers that the population of the entire State is less than two hundred thousand, a fair sized city in most other States, five is a good average. At the meetings, rough and finished stones are passed for inspection by the proud possessors. Plans are made for field trips that take members far into the hills and deserts on the slightest rumor of a new or good type of cutting stone. At Christmastime the members exchange rocks in gay holiday wrappings.

Rock and mineral club members discuss their treasures at regular meetings and arrange for field trips on weekends and holidays.

The unorganized rock hounds by far outnumber the membership of the clubs. Women and children as well as men are enthusiastic followers of the avocation. Families of rock hounds and their "pebble pups" spend their holidays hunting for new specimens, making a picnic occasion of the search.

The hobby can be as cheap as possible to varying degrees of expensiveness. A prospector's pick, rock sack, a few sandwiches, a canteen of water and a tankful of gas are all the amateur needs. As his interest mounts, a shovel is added, or for the artifact collector, a cotton lined box to protect the delicate points he finds becomes a necessity. After that comes the magnifying glass to carry in the field and a miscroscope for closer study at home. When he becomes more intent in the pursuit of his hobby, metal and mineral detectors, black lights, lapidary saws and polishers, and jewelry settings are added to his equipment. Books on minerology and geology begin to fill the shelves of his library and specially built cabinets line the walls of his home to display his specimens.

Small roadside stands offer for sale specimens of rocks, gem stones, ores and minerals to the "steering wheel" collector who does his collecting the easy but expensive way. Lapidary shops appear in odd places and the owners will cut and polish stones for the customer, give him information about good hunting grounds, and sell him pamphlets and maps to direct him in his searchings. They also have for sale the finished products of their work, such as book ends and ash trays of petrified wood, cabachons and costume jewelry.

It is a wonderful hobby for those who like to spend their days in the clear pure air, hiking over hills and through deserts, and sleeping out at night under the black star-studded skies.

The educational aspects of the hobby come as the rock hound learns something of the ever-changing composition of the earth upon which he lives. The artifact collector learns things about the beginning of mankind in this country and the fierce struggle against nature for the survival that went on for thousands of years. Any lapidarist will tell you that he can come home from a hard day's work, dog tired, and go to his rock room to cut or polish a stone. Soon the cares of the day are banished and whole hours go by while he works on, unmindful of time, mind stimulated and body completely relaxed.

The growing popularity of rock hunting, plus the wide, smooth flowing highways of Nevada, is attracting rock hounds from all over the country. Garnet hunters scramble about the base of the Ruby Mountains which got their name from an old prospector who mistook the pretty red stones for rubies. The precious fire opal in Virgin Valley has claimed the attention of the rock hunter for so long that it is pretty well picked over, but there are other fields being discovered all the time. People skirt the edges of the big copper territories in search of turquois, azurite, malachite, chrysocolla and chalcopyrite. Valley floors are strewn with Nevada black diamonds (obsidian tears) and the banks of dry washes and ancient river beds are combed for many types of petrified wood. Nevada has wood that has changed into calcite, agate, opal, and jasper or mixtures of all these. Shores of present and prehistoric lakes present varieties of tufa that nature has fashioned into weird gargoyles. Many of the hot springs areas are hunting grounds for travertine. Some of the caves in the country have deposits of onyx. Several geode fields have rocks that when cut open show calcite, agate or chalcedony linings, but the most sought after geodes are lined with the smooth six-sided sharp quartz crystals, either clear or amethyst. Carnelians, various types of agate, such as moss and lace, multicolored wonder stones, opalite, satin spar, chalcedony roses and different forms of breccia are collector's items. Many and colorful are the varieties of specimens awaiting the arrival of the rock hounds in Nevada.

Once the "bug" bites, you are a goner; the whole family becomes lapidary minded, like these Carson City folk.

Just a few specimens of gem material found in Nevada. In every county, fertile fields are waiting discovery of jewels in the rough if you know where to look for them. A hammer, a bag and a magnifying glass can be of big help in gem hunting.

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